

III. REMARKS

Claims 1-22 are pending in this application. Applicants thank the Examiner for the rejoinder of claims 14-22, which were previously withdrawn from consideration. Claims 1, 2, and 7 have been amended. Applicants are not conceding in this application that the previously presented claims are not patentable over the art cited by the Examiner, as the present claim amendments are only for facilitating expeditious allowance of the claimed subject matter. Applicants respectfully reserve the right to pursue the previously presented and other claims in one or more continuation and/or divisional patent applications. Reconsideration in view of the following remarks is respectfully requested.

In the Office Action, claims 1-8 and 10-22 are rejected under 35 U.S.C. § 103(a), as allegedly being unpatentable over Bloom (US Pub. No. 2003/0212678, hereinafter, “Bloom”) in view of the Applicants’ admitted prior art (AAPA, at [0003] in the instant application) and further in view of Doganaksoy (US Pub. No. 2004/0083083, hereinafter, “Doganaksoy”). Applicants respectfully traverse the rejections for reasons explained below.

With respect to claim 1, Applicants submit that the technology of Doganaksoy is sufficiently divergent that one skilled in the art of evaluating a data mining algorithm, would not be motivated to look to the art of material design and creation to improve or modify practices related to evaluating data mining algorithms. The Office recognizes that “Doganaksoy... is silent with regard to data mining algorithms”. Office Action, p. 3, lines 1-2. However, the Office does not state why one skilled in the art would look to Doganaksoy to modify the combination of Bloom and AAPA.

Further, in the rejection, the Office states that Doganaksoy discusses obtaining goals in paragraph 9. Applicants note that this paragraph discusses “what the goal is for each property”.

Doganaksoy, paragraph 0009. As a result, Doganaksoy is discussing goals for properties. However, the Office does not use Doganaksoy's goals in the rejection, rather the Office equates the properties in Doganaksoy to Applicants' claimed goals. Office Action, pp. 3-4 (explanation of interpretation of claim term assigning a weight to each goal in the set of goals). To this extent, the Office changes its interpretation of Doganaksoy by first correlating Doganaksoy's goals to Applicants' claimed goals (Office Action, p. 3) and then correlating Doganaksoy's properties to Applicants' claimed goals (Office Action, p. 3). Applicants submit that such a piecemeal interpretation of Doganaksoy is improper.

Applicants submit that Doganaksoy's properties for a material are substantially different from and unrelated to the goals for a data mining algorithm. For example, a property is an attribute or quality of a material, while a goal comprises an objective, or a purpose toward which an endeavor is directed. The Office does not present any rationale as to why one skilled in the art would look to Doganaksoy's properties rather than its goals for the properties in evaluating a data mining algorithm using goals for the data mining algorithm. Further, Applicants respectfully submit that one skilled in the art of evaluating a data mining algorithm would not look to Doganaksoy, in general, or Doganaksoy's properties when evaluating a data mining algorithm.

Even if, *arguendo*, one were so motivated, Applicants assert that the combined references of Bloom, AAPA, and Doganaksoy fail to teach or suggest each and every feature of the claimed invention. For example, the combined references fail to teach or suggest "assigning a weight to each goal in the set of goals for the data mining algorithm" (claim 1, line 5). In the current Action, the Office admits that Bloom does not teach the use of a weight for each goal (p. 3), and accordingly relies on Doganaksoy (at [0006]) to allegedly teach this feature. Applicants

respectfully submit, however, that Doganaksoy also fails to teach the feature of assigning a weight to each goal for a data mining algorithm (as recited in amended claim 1). In particular, Doganaksoy teaches giving properties having higher priorities greater weight than properties having lower priorities. However, as discussed above, Doganaksoy's properties are unrelated to Applicants' claimed goals. Additionally, Doganaksoy's discussion of goals, in paragraph 0009, does not include assigning weights to the goals.

Further, the combination of Bloom and Doganaksoy fails to teach or suggest assigning a weight to each goal in a set of goals for a data mining algorithm. In particular, Bloom only discusses the use of a weight with respect to accuracies, and Doganaksoy discusses use of a weight with respect to properties, not the goals for the properties. To this extent, the combination of Bloom and Doganaksoy fails to teach or suggest assigning weights to goals that a data mining algorithm is configured to solve.

Additionally, Applicants respectfully submit that Bloom, AAPA, and Doganaksoy fail to teach or suggest calculating a performance value for the data mining algorithm based on the set of weights assigned to a set of goals and a set of results for the applying step as in claim 1. In its rejection, the Office cites paragraph 0015 of Bloom and paragraph 0006 of Doganaksoy in support of its rejection. However, Applicants note that both are unrelated to calculating a performance value that is based on a set of weights and a set of results. In contrast, Bloom merely discusses calculating a figure of merit using positive and negative relative accuracy and an assigned weight, while Doganaksoy merely discusses ranking materials according to a match score with desired properties. Neither reference teaches or suggests making any calculation based on a set of weights assigned to a set of goals for a data mining algorithm and a set of results from applying the data mining algorithm to a dataset.

Accordingly, Applicants respectfully submit that Bloom, AAPA, and Doganaksoy fail to teach each and every feature of the claimed invention. On the basis of the above remarks, Applicants respectfully request the withdrawal of the rejection of claim 1 under § 103(a).

With respect to the rejections of independent claims 7, 14, and 20, Applicants note that each of these claims includes features similar in scope to those already addressed above with respect to claim 1. Further, the Office relies on the same arguments and interpretations of Bloom and Doganaksoy as discussed above with respect to claim 1. To this extent, Applicants herein incorporate the arguments presented above, and respectfully request withdrawal of the rejections of independent claims 7, 14, and 20 for the above-stated reasons.

With further respect to claim 2, Applicants respectfully submit that Bloom, AAPA, and Doganaksoy fail to teach each and every feature of the claimed invention. For example, the combination fails to teach or suggest identifying a set of error cases for a goal in the set of goals, each error case corresponding to a possible incorrect result in fulfilling the goal, and assigning a weight to each error case in the set of error cases as in claim 2. In support of its rejection, the Office cites Bloom, paragraph 15, and Doganaksoy, paragraphs 10-11. In particular, the Office alleges that “positive and negative relative accuracies” allegedly teaches identifying a set of error cases for a goal. However, Applicants note that this portion of Bloom merely discusses the overall performance results, and not error case(s) corresponding to a possible incorrect result in fulfilling the goal as in claim 2. Further, Doganaksoy, since it lacks any discussion of data mining algorithms, also lacks any discussion of error case(s) corresponding to a possible incorrect result in fulfilling a goal. As a result, Applicants again respectfully request withdrawal of the rejection of claim 2 under § 103(a).

In the Office Action, claim 9 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Bloom in view of Doganaksoy, and further in view of Vishnubhotla (US Pub. No. 2002/0147599, hereinafter, “Vishnubhotla”). Applicants respectfully submit that this claim is allowable for reasons stated above relative to independent claim 7, as well as for its own additional claimed subject matter. Accordingly, Applicants respectfully request that the Office withdraw the rejection under 35 U.S.C. § 103(a) to claim 9.

Applicants respectfully submit that the Application is in condition for allowance. Should the Examiner believe that anything further is necessary in order to place the application in better condition for allowance, the Examiner is requested to contact Applicants’ undersigned attorney at the telephone number listed below.

Respectfully submitted,

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